



Examiners' Report

June 2024

GCSE Geography A 1GA0 03

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Introduction

This was the sixth series of the Pearson Edexcel GCSE (9-1) Geography A specification. This Examiner's Report is intended to provide an insight into performance on Paper 3 – Geographical Investigation: Fieldwork and UK Challenges – in particular, analysing the majority of questions in terms of what went well and where common mistakes and underperformance was evident.

This paper consists of three sections. Of the 64 marks, up to 4 marks are awarded for spelling, punctuation, grammar and use of specialist terminology. The exam includes multiple-choice questions, short open, open response, calculations and 8-mark extended writing questions. The command words which are used in this paper are defined on page 43 of the specification. Each of the questions is mapped to one or more of the Assessment Objectives (AOs).

In **Section A:** Physical Environments, candidates are required to answer either Question 1 (River Environments) or Question 2 (Coastal Environments), dependent on their chosen fieldwork investigation.

This section is awarded a total of 18 marks.

In **Section B:** Human Environments, candidates are required to answer either Question 3 (Urban Environments) or Question 4 (Rural Environments), dependent on their chosen fieldwork investigation.

This section is awarded a total of 18 marks.

In **Section C:** UK Challenges, candidates are required to answer all questions, with 4 marks available for spelling, punctuation and grammar on Question 5(d), giving a total mark tariff of 28 for this section.

For this series there was an increase in the overall mean mark for the paper with candidates demonstrating improved performance across some of the questions which could be attributed to several factors. One of these might be related to candidates' fieldwork opportunities post-COVID. Secondly, candidates understanding of how to approach the questions may have contributed to improved performance. Finally, for the 12-mark question candidates were able to 'get to grips' with the content and incorporate the evidence from the resources into their response with greater degree of accuracy. Alongside this, it was noted by examiners there was an improvement in the way candidates structured their response to this question. Overall, these factors could have resulted in the rise of the paper mean mark for this series.

Question 1 (a)(i-ii)

In this unfamiliar fieldwork question, candidates were asked to describe one fieldwork method that could have been used by the students to measure river depth. In a large proportion of the responses seen by examiners, candidates often talked about the fieldwork equipment the students could use with most candidates mentioning a meter ruler. For candidates to achieve the second mark, they were required to say how the ruler would be used to measure the river depth.

In the second half of this question, candidates were required to explain one disadvantage associated with measuring river depth. For candidates to achieve the full marks, examiners were looking for a development for WHY it was a disadvantage. For a large proportion of candidates, the WHAT was presented which tended to be related to 'rocks on the riverbed', but not all candidates were able to offer WHY this was a disadvantage. In some cases, some candidates talked about the method being inaccurate in isolation with no context. It is important in this type of 2-mark question that candidates connect the idea of the students' accuracy being affected with something first.

If you answer Question 1, put a cross in the box ☒ .

1 A group of students collected data to investigate changes at six sites along a river channel.

(a) (i) Describe **one** fieldwork method that could have been used by the students to measure river depth.

(2)

The students could use a metre ruler stick to measure the depth. The students would submerge the ~~meter~~ metre ruler until the bottom of the ruler was touching the river bed. They then measure how high the water is against the stick. They should repeat this at the middle and edges of the width and repeat in multiple places

(ii) Explain **one** disadvantage of using this fieldwork method. along the river.

(2)

In some areas of the river it may be difficult to identify the bottom of the river bed due to angular boulders and mud. measuring from above the actual bed would distort the result for ~~the~~ actual depth.



This response scored 4 marks.

The candidate has indicated the students could use a ruler to measure river depth and then developed this to say how they would use the ruler.

In the second half, the candidate has identified a disadvantage of measuring river depth linked to the uneven nature of the river bed and developed this to say why this would be a disadvantage.

Question 1 (b)(i)

The scatter graph was plotted accurately by most candidates. However, there were some occasions when candidates didn't complete the graph. It is important that centres remind candidates to read all the information set out in a question so that they don't miss out on marks unnecessarily.

Question 1 (b)(ii)

For this unfamiliar fieldwork question, candidates were asked to calculate the mean width of the river using the data provided in the table. Most candidates were able to do this accurately and show their working out to arrive at an answer to one decimal place. When candidates didn't score the two marks, it was reported by examiners that this was often due to two key reasons. The first one was related to candidates not showing their working out and only providing the answer. The second one was related to candidates not showing their full working out. It is important for this type of question that candidates do show their full working out and don't indicate 'how' to work out a mean.

(ii) Study Figure 1b in the Resource Booklet.

Calculate the mean width of the river.

Give your answer to **one** decimal place.

You must show your working in the space below.

$$0.80 + 1.50 + 4.00 + 6.00 + 6.50 + 7.5 = 26.3 \quad (2)$$

$$26.3 \div 6 = 4.383 \\ 4.4$$

Mean width 4.4 m



ResultsPlus
Examiner Comments

This response scored 2 marks.

The candidate has shown the correct working out for calculating the mean and then written the answer to one decimal place.



ResultsPlus
Examiner Tip

When candidates are asked to show their working out, it is important they show this in full with all the stages indicated in the space provided.

Question 1 (b)(iii)

In this 2-mark 'identify' question, most candidates were able to select the two correct statements about the river data in Figure 1b. When candidates didn't score full marks, it was reported by examiners that candidates either only selected one statement or didn't select the correct statements. It is important that candidates read the question in full and understand that when asked to do one or two things, the words will be **bold** to indicate this.

Question 1 (c)

In this extended 8-mark familiar fieldwork question, candidates were required to evaluate the following statement about their own geographical investigation.

'My fieldwork data supported the expected changes to river discharge downstream (width, depth and velocity).'

While the mark scheme identifies the indicative content for this question, this is not an exhaustive list and candidates were awarded marks for relevant understanding, interpretation and skills which were not listed. Ultimately, when deciding on the final mark, examiners used the level descriptors to allocate a 'best fit' level to the response and then decided where, within the level, the response fell. The level descriptors are the same for all 'evaluate' questions, and across all the papers in both GCSE Geography specifications. It is, therefore, important that centres and candidates become familiar with them and how they are applied in the context of the paper and specific question that is being asked. In the case of these questions, the assessment objectives (AOs) which were being examined were AO3 (4 marks) and AO4 (4 marks).

To demonstrate evidence for AO4, candidates needed to provide information relating to their own fieldwork which examiners reported was often about the data collection methods used to gather data on the width, depth or velocity. In a large proportion of responses seen that included specific 'fieldwork colour', this included naming survey sites and the frequency of data collection. It was reported by examiners that some of the best responses were supported with actual data. Where candidates didn't always achieve the higher marks, this tended to be related to making judgements about whether the fieldwork data gathered supported the expected changes. Candidates would benefit from further support with this part of the extended questions.

(c) You have studied a river as part of your geographical investigation.

pros
cons
goal

Evaluate the following statement about your fieldwork.

My fieldwork data supported the expected changes to river discharge downstream (width, depth and velocity).

(8)

Title of your geographical investigation

Sor Brook, Bloxham.

To begin with, my fieldwork ~~data~~ data did support the expected changes to river width. For example, I used a systematic method where I measured the river width at 3 different sites along the river every 100 metres down. ^① This method showed that the width of the river increased further downstream. This means that my fieldwork data followed Bradshaw's model which states that river width increases from the source to the river mouth. Therefore my fieldwork data supported the expected changes to river discharge. ^① (I then plotted this information on a line graph, showing continuous data).

Furthermore, my fieldwork data again supported the expected changes to river velocity. For example we measured this by standing 5 metres apart in the river and the person further upstream dropped a float ~~towards the~~ and the river carried it to the person further downstream. We timed how long this took and did it 3 times to work out the mean. I then

plotted this information on a line graph and it revealed how the velocity increased further downstream, therefore following Bradshaw's model.

In conclusion my fieldwork data definitely supported expected river changes as it followed Bradshaw's model.



ResultsPlus
Examiner Comments

This response scored Level 2 – 5 marks.

The candidate has provided two examples of the fieldwork data collection methods they used to gather fieldwork data for their river investigation. The candidate has described how they collected the data and provided examples of specific frequency and sampling strategies for AO4. There is some evidence of partial developed points for AO3, but these need to be developed in greater depth to evaluate whether the data collected supported their expected change to river discharge. Alongside this, to provide evidence of Level 3 AO4, the candidate could have included specific survey sites and data they had collected to support their judgements.

Question 2 (a)(i-ii)

In this unfamiliar fieldwork question, candidates were asked to describe one fieldwork method that could have been used by the students to measure sediment size. In a large proportion of the responses seen by examiners, candidates often talked about the fieldwork equipment the students could use with most candidates mentioning a calliper or ruler to measure the short and long axis of the sediment. For candidates to achieve the second mark, they were required to say how the piece of equipment would be used to conduct the method.

In this second part of the question, candidates were required to explain one disadvantage associated with measuring sediment size. For candidates to achieve the full marks, examiners were looking for a development for WHY it was a disadvantage. For a large proportion of candidates, the WHAT was presented which tended to be related to difficulty in measuring the unusual shape of sediments but not all candidates were able to offer WHY this was a disadvantage. In some cases, candidates talked about the method being inaccurate in isolation with no context. It is important in this type of 2-mark question that candidates connect the idea of the students' accuracy being affected with something first.

Question 2 (b)(i)

The scatter graph was plotted accurately by most candidates. However, there were some occasions when candidates didn't complete the graph. It is important that centres remind candidates to read all the information set out in a question so that they don't miss out on marks unnecessarily.

Question 2 (b)(ii)

For this unfamiliar fieldwork question, candidates were asked to calculate the mean gradient of the beach using the data provided in the table. Most candidates were able to do this accurately and show their working out to arrive at an answer to one decimal place. When candidates didn't score the two marks, it was reported by examiners that this was often due to two key reasons. The first one was related to candidates not showing their working out and only providing the answer. The second one was related to candidates not showing their full working out. It is important for this type of question that candidates do show their full working out and don't indicate 'how' to work out a mean.

Question 2 (b)(iii)

In this 2-mark 'identify' question, most candidates were able to select the two correct statements about the beach data in Figure 2b. When candidates didn't score full marks, it was reported by examiners that candidates either only selected one statement or didn't select the correct statements. It is important that candidates read the question in full and understand that when asked to do one or two things, the words will be **bold** to indicate this.

Question 2 (c)

In this extended 8-mark familiar fieldwork question, candidates were required to evaluate the following statement about their own geographical investigation.

'My fieldwork data supported the expected changes to beach morphology (gradient and width) and sediment size.'

While the mark scheme identifies the indicative content for this question, this is not an exhaustive list and candidates were awarded marks for relevant understanding, interpretation and skills which were not listed. Ultimately, when deciding on the final mark, examiners used the level descriptors to allocate a 'best fit' level to the response and then decided where, within the level, the response fell. The level descriptors are the same for all 'evaluate' questions, and across all the papers in both GCSE Geography specifications. It is, therefore, important that centres and candidates become familiar with them and how they are applied in the context of the paper and specific question that is being asked. In the case of these questions, the assessment objectives (AOs) which were being examined were AO3 (4 marks) and AO4 (4 marks).

To demonstrate evidence for AO4, candidates needed to provide information relating to their own fieldwork which examiners reported was often about the data collection methods used to gather data on the width, depth or velocity. In a large proportion of responses seen that included specific 'fieldwork colour', this included naming survey sites and the frequency of data collection. It was reported by examiners that some of the best responses were supported with actual data. Where candidates didn't always achieve the higher marks, this tended to be related to making judgements about whether the fieldwork data gathered supported the expected changes. Candidates would benefit from further support with this part of the extended questions.

Question 3 (a)

In this familiar 4-mark fieldwork question, candidates were asked to explain two methods they had used in their urban investigation. Most candidates were able to identify two appropriate methods which examiners reported were commonly environmental quality surveys (EQS), questionnaires and pedestrian counts. What candidates didn't always show evidence of was developing their initial point about the method to say WHY they used this method. This question had a different command word to the previous unfamiliar 2-mark 'describe' question for questions 1(a)(i) and 2(a)(i). In some cases, candidates described HOW they conducted their urban data collection method and not WHY they did it.

If you answer Question 3, put a cross in the box ☒ .

3 (a) You have studied an urban area as part of your own fieldwork.

Explain **two** methods you used to collect your fieldwork data.

(4)

1 Pedestrian count. This method involves counting how many people walk past a certain point in a minute. This allows you to see how ~~many~~ busy the area is in comparison to other sites to help me answer my hypothesis.

2 environmental ^{quality} survey. This consists of ranking different features of the environment from -3 to 3 to find out which sites are the most clean and ^{have the best} quality in order to answer my hypothesis, for example the amount of litter.



ResultsPlus
Examiner Comments

This response scored 4 marks.

The candidate has identified two data collection methods linked to an urban study and developed both of them to say why these methods were used.



ResultsPlus
Examiner Tip

In this 'explain' question, it is important that candidates develop their initial points to give reasons why. In the context of this familiar fieldwork question, it is the reason why the methods were used for their fieldwork investigation.

Question 3 (b)

In this 'explain' 2-mark question, candidates were asked to give an advantage of a technique used to present their urban fieldwork data. Most candidates were able to choose one of their data presentation techniques with a bar chart being one of the most popular seen by examiners. Some candidates misread the question and talked about a data collection method. It's important candidates take their time reading the question and understand the differences between data collection methods, data presentation techniques and sampling strategies.

(b) Explain **one** advantage of a technique used to present your fieldwork data.

(2)

Technique used

scatter graph

accurately shows the data
from smallest to largest



ResultsPlus
Examiner Comments

This response scored 1 mark.

The candidate has identified an advantage of using a scatter graph. In order to achieve the second mark, the candidate would need to say why this is an advantage of using this data presentation technique.

Question 3 (c)

In this 2-mark 'explain' question, candidates were required to give a disadvantage of using a sampling strategy with the most common strategy seen by examiners being random sampling. As per previous series, candidates struggle to get to grips with sampling strategies in terms of both knowing what they are and the advantages and disadvantages of using them. This was evident in this series with many candidates failing to offer a suitable disadvantage of using a chosen sampling strategy. Some candidates, as in Question 3(b), misread the question and answered about their data collection method. Candidates would benefit from a greater understanding of sampling strategies with this appearing to be a repeated knowledge gap.

Question 3 (d)

This familiar 2-mark fieldwork question required candidates to explain one of their secondary data sources and say why it helped to support their investigation. Most candidates were able to recall their secondary data source with common responses such as Census data. However, not all candidates were successful in saying why the secondary data supported their investigation which limited them for the second mark. When candidates did develop their point about the type of secondary data, there was a degree of variability in how candidates approached this. Some candidates made generic comments about it providing them with additional information to support their primary data collection. The best responses provided a developed point that directly linked to their fieldwork intentions and why the secondary data source supported their investigation.

Question 3 (e)

In this second of the 8-mark unfamiliar extended fieldwork question, candidates were asked to evaluate the following statement.

'The students' method shown in Figure 3 to collect data was accurate and reliable.'

This question was well attempted and most of the responses seen by examiners had a good range of discussion relating to the data collection method presented in Figure 3. The best responses identified the strengths of the 5-minute sample and the simple classification system to make the investigation feasible and achievable. In some cases, some candidates noted the approximate nature of the 500m intervals and the potential missed information/characteristics between sites. The use of the evidence from Figure 3 and supporting judgements enabled candidates to reach the higher marks in Level 2 and into Level 3.

Similarly to previous series, many candidates structured their response with two clear paragraphs weighing up the accuracy and reliability of the data collection method and then bringing this altogether with a conclusion at the end.

(e) Study Figure 3 in the Resource Booklet.

A group of students were investigating the quality of the environment in an urban area.

Evaluate the following statement.

The students' method shown in Figure 3 to collect data was accurate and reliable.

(8)

To start with accuracy is how closer the collected data is to the true value. Reliability is also ~~also~~ if you would get the same answer and pieces of data if you repeated the experiment/investigation with the same method. In Figure 3, the student performs an environmental quality survey to find out the quality of the environment along a transect. One way the student's results were unreliable is that it was conducted only on 1 day which is Tuesday at 1 time of year (November) and the weather conditions were wet. This may influence the results gotten, as at different times of day and year, the quality of the environment may change. Therefore, as there are no other repeats in different conditions, the student's results may be unreliable as you may not get same result when repeated with same method. Therefore people may disagree with the statement that the method was accurate and reliable. Furthermore, different members of a group made judgements on the scale and quality of the environment. This is quite inaccurate as different people interpret the quality of the environment differently as it is subjective to own experiences. As a result, variation and ~~and~~

anomalous results may happen as ~~the~~ different members may take different things into consideration.

~~How~~ ~~some~~ lastly, another thing that effected the ~~net~~ accuracy of the investigation was the time limit of the investigation. The students were capped at 5 minutes ~~and~~ at each survey site. (Total for Question 3 = 18 marks)

That might not have been enough time for the student's to make appropriate decisions reducing the accuracy of the EQS. However, some may say it is reliable as it repeated at 4 different survey sites. Therefore you can compare the EQS from ~~at~~ all the 6 different groups to find mean EQS scores for each area.

In my opinion, I think the student's result were quite inaccurate and unreliable as there were ~~a~~ judgement errors as different people scaled different parts. Personally the most unreliable point was that it was taken only on 1 day with bad weather as that can ~~not~~ really affect the reliability of the quality of environment.



This response scored Level 3 – 8 marks.

The candidate has a balance of AO3 and AO4 to consider the accuracy and reliability of the students' method in Figure 3. The candidate extracts specific evidence from the Figure for AO4 throughout the response and uses this to support the judgements made. The candidate builds on each of their points and considers how the approach used by the students might have affected the investigation to demonstrate good evidence for AO3. The candidate brings together their findings with an overall conclusion at the end.

Question 4 (a)

In this familiar 4-mark fieldwork question, candidates were asked to explain two methods they had used in their rural investigation. Most candidates were able to identify two appropriate methods which examiners reported were commonly environmental quality surveys (EQS), questionnaires and pedestrian counts. What candidates didn't always show evidence of was developing their initial point about the method to say WHY they used this method. This question had a different command word to the previous unfamiliar 2-mark 'describe' question for Questions 1(a)(i) and 2(a)(i). In some cases, candidates described HOW they conducted their rural data collection method and not WHY they did it.

Question 4 (b)

In this 'explain' for 2-marks question, candidates were asked to give an advantage of a technique used to present their fieldwork data. Most candidates were able to choose one of their data presentation techniques with a bar chart being one of the most popular seen by examiners. Some candidates misread the question and talked about a data collection method. It's important candidates take their time reading the question and understand the differences between data collection methods, data presentation techniques and sampling strategies.

Question 4 (c)

In this 2-mark explain question, candidates were required to give a disadvantage of using a sampling strategy with the most common strategy seen by examiners being random sampling. As per previous series, candidates struggle to get to grips with sampling strategies in terms of both knowing what they are and the advantages and disadvantages of using them. This was evident in this series with many candidates failing to offer a suitable disadvantage of using a chosen sampling strategy. Some candidates, like in Question 3(b), misread the question and answered about their data collection method. Candidates would benefit from a greater understanding of sampling strategies with this appearing to be a repeated knowledge gap.

Question 4 (d)

This familiar 2-mark fieldwork question required candidates to explain one of their secondary data sources and say why it helped to support their investigation. Most candidates were able to recall their secondary data source with common responses such as Census data. However, not all candidates were successful in saying why the secondary data supported their investigation which limited them for the second mark. When candidates did develop their point about the type of secondary data, there was a degree of variability in how candidates approached this. Some candidates made generic comments about it providing them with additional information to support their primary data collection. The best responses provided a developed point that directly linked to their fieldwork intentions and why the secondary data source supported their investigation.

Question 4 (e)

In this second of the 8-mark extended question for this exam paper, candidates were asked to evaluate the following statement.

'The students' method shown in Figure 4 to collect data was accurate and reliable.'

This question was well attempted and most of the responses seen by examiners had a good range of discussion relating to the data collection method presented in Figure 4. The best responses identified the strengths of the 5-minute sample and the scaled questions to make the investigation feasible and achievable. In some cases, some candidates noted the approximate nature of the 100m intervals / cold, wet Tuesday in November and the potential missed information/characteristics between sites. The use of the evidence from Figure 4 and supporting judgements enabled candidates to reach the higher marks in Level 2 and into Level 3.

Similarly to previous series, many candidates structured their response with two clear paragraphs weighing up the accuracy and reliability of the data collection method and then bringing this altogether with a conclusion at the end.

Question 5 (a)(ii)

For this 2-mark 'describe' question, candidates were asked to indicate the pattern of the predicated increase in flood risk in Scotland. The best responses demonstrated candidates were able to spot that East Scotland had the highest flood risk and West Scotland had the lowest flood risk which was supported by extraction of the percentages. In some cases, examiners reported that candidates didn't read the question correctly, which resulted in responses relating to the whole of the UK rather than just focusing on Scotland.

Question 5 (a)(iii)

In this 2-mark 'state' question, candidates were asked to give two possible reasons why flood risk is expected to increase in the UK by 2080. Many candidates answered this question successfully with popular reasons including global warming, deforestation, and rising sea levels.

Question 5 (b)

For this 3-mark 'explain' question, candidates were asked to give one impact of flooding on people in the UK illustrated in Figure 5b. Most candidates could successfully extract one impact of flooding indicated in Figure 5b to achieve the first mark. The two most common impacts candidates used was the flooding of properties and the mental health impacts. This was then supported by a reason why this would impact on people with common responses relating to people being forced to relocate or businesses requiring time to repair. In this series, a larger proportion of candidates were able to provide a further developed point to say why this would impact people.

Study Figure 5b in the Resource Booklet.

(b) Explain **one** impact of flooding on people in the UK.

(3)

Flooding causes 40% of businesses to shut down. This causes people to lose their job, hence no income is received. They have less disposable income and a lower living standard.



This response scored 3 marks.

The candidate has provided one impact of flooding illustrated in Figure 5b and then double developed this to say why this is an impact on flooding.



When candidates are asked to explain one impact as in this question, it is important they develop their point with a chained explanation. This can be achieved with phrases such as 'this means that... / which then leads to...!'.

Question 5 (c)

Overall, this 4-mark 'explain' question was answered well by candidates, with many able to provide two approaches to managing flood risk and build on each approach to say why they would be suitable for reducing flood risk. The most common responses seen by examiners included river and coastal engineering approaches such as sea walls and raised embankments.

(c) Explain **two** approaches to managing flood risk in the UK.

- 1 One approach is to plant more trees through reforestation. ^{(4) attend rivers}
This means when there is lots of rainfall, less water will go into the river because the trees will absorb lots of it. This decreases the risk of floods.
- 2 Another approach is river dredging which deepens a river so it can hold more water. This decreases flood risk because it means it is less likely for a flood to occur when there is high precipitation.



ResultsPlus
Examiner Comments

This response scored 4 marks.

The candidate has identified two approaches to managing flooding and developed both of these points to say why they would help reduce the risk of flooding.

Question 5 (d)

In this 12-mark extended writing question, candidates were asked to discuss the following view.

'With the increasing possibility of flooding in the UK, the costs of managing the risks successfully are likely to outweigh the benefits.'

For this series, there was an improvement in the responses seen by examiners in comparison to previous series. Examiners reported that most candidates were able to extract information from the Figure(s) to demonstrate evidence for AO4 and use this to decide if managing the risks successfully was likely to outweigh the benefits. It was felt that candidates' use of the resources for this series was particularly successful, and candidates seemed to 'get to grips' with the data presented to them and integrate the evidence into their responses to support their points with a greater degree of accuracy.

Examiners noted that some candidates were lacking AO2 content to their answers and therefore demonstrated a lack of wider understanding of the course which affected their ability to achieve the higher marks at the top end of L2 and into L3. When candidates did this successfully the responses would typically link to climate change, hydrology, the fluvial system, as well as impacts on the economy, doing so with excellent reference to key terminology.

This question also had 4 marks allocated for the assessment of spelling, punctuation, grammar and use of specialist terminology. Most candidates achieved either 2 or 3 marks.

Candidates were not awarded any of these marks if they did not answer the question or if their response did not achieve any marks for the main content being assessed. The use of paragraphs was one element which contributed to this mark and should be encouraged as it helps to structure candidates' responses.

- (d) Use the information from the Resource Booklet (Figures 5a to 5e) as well as knowledge and understanding from the rest of your geography course.

'With the increasing possibility of flooding in the UK, the costs of managing the risks successfully are likely to outweigh the benefits.'

Discuss this view.

(12)

Due to climate change ^{and global warming}, ~~it is expected that~~ ice caps and glaciers have melted to increase the sea's volume. These rising sea levels, coupled with storm surges and increasing wind speeds, can greatly increase the possibility of the UK's current sea defences being breached, especially during winter. Managing these flood risks can be ~~ex~~ very expensive in the long-term, and can lead to neglect of other areas, which may lead to local conflicts. However, ~~many~~ preventing flooding can save the economy thousands of pounds for repairs, and can protect sentimental ~~houses~~ ^{homes}, buildings and landscapes.

Figure 5a states that the predicted increase in flood risk by 2080 for South-west England is 30%, so it is evident that flood risk have to be managed. However, Figure 5c estimates that 'a further £36 billion' is required for ^{investment into} flood risk management. This will take away lots of money from the government's public spending and other priorities, not to mention increased income tax on citizens to contribute to the investment. With the cost of living crisis currently ongoing, a further rise in taxes to cover the costs for flood risk management may be met with cries of anguish and disapproval from the general public. Figure 5d states that the cost of reducing river and coastal flood risk in London has more than doubled from 2016 to 2020[^], which is a very ^(£16 billion to £31 billion) large increase in money and will affect the government's ability to fund other projects and priorities such as the NHS, and the police force and education.

Installing hard engineering structures such as groynes can also stave beaches down of sediment, creating narrower beaches in lowland areas which does not eliminate the flooding, it only redirects it. Other soft engineering schemes such as managed beach nourishment takes sediment directly from the seabed, damaging aquatic ecosystems and destroying habitats. This can trigger a chain of events in which certain species may become endangered if they cannot relocate or adapt to new surroundings.

However, there are also many benefits to managing flood risks, such as preserving business income and revenue. Figure 5b states that 40% of businesses do not re-open after the effects of flooding which threatens many people's jobs and means of survival. This leads to a rise in unemployment and poverty, which can diminish the general wellbeing and wealth of the population, crashing the economy. This shows just how important it is that flood defences are put in place to avoid leading the UK into an era of austerity and poverty.

Sea walls are man-made structures built as a physical barrier against the strong tides, reflecting wave energy back towards the sea and preventing the likelihood of a breach. Although they are initially expensive^{for manufacturing}, they have low minimal running costs. Also, it can provide jobs for many people, as workers are needed for collecting materials, delivering them and building them on the beach. This shows that flood risk management has many benefits for individuals and areas as a whole in the UK. Figure 5c states that "14% of electricity sub-stations are in areas at risk of flooding".

⚡ In this modern age, as we become more heavily reliant on technology for both work and leisure purposes, it is increasingly important that our connectivity to the outside world is not jeopardised. By managing the flood risks successfully, the UK government could prevent chaos and disorder of being cut off from electricity which we all use for domestic cooking, heating and device usage.

Many people may find it pointless to protect coasts in the UK, as interpreted from figure 5e, as they view climate change as something that ~~with~~ people 'can do nothing about that in the long term'. However, my opinion is that I disagree that the costs of managing flood risks successfully ~~is more important~~ ^{outweighs the benefits} because although investment in flood defences may prove costly, it will be even more expensive if we simply allowed flooding effects to worsen and ~~affect our~~ ^{lead to} transport delays, power cuts and damaged homes. Our aim is to reduce the effects of flooding, not eliminate it completely, so any attempt to reduce the impact on UK citizens of flooding should be valued and applauded.

(Spelling, punctuation, grammar and use of specialist terminology = 4 marks)

(Total for Question 5 = 28 marks)



This response scored Level 3 – 12 marks and 4 marks for SPAG.

The candidate has provided a balanced response which considers both sides of the view. The candidate explores the view through effective use of the resources throughout the response for AO4 to support the judgements made. The judgements demonstrate understanding of the topic which is further supported by evidence of the candidate's wider geographical knowledge from other areas of the course. This provides strong evidence for both AO2 and AO3. The candidate brings together their ideas relating to the view with a substantiated conclusion.

Paper Summary

Based on their performance on this paper, centres are offered the following advice:

- It is important that candidates use knowledge and understanding from conducting their own fieldwork investigations to answer the familiar fieldwork questions through providing evidence from their investigation. Candidates could do this through mentioning specific survey sites they visited, the frequency of the data collection methods, and fieldwork data (if relevant).
- In the 2-mark familiar and unfamiliar 'explain' fieldwork questions, candidates should consider the WHAT and WHY. For example, if candidates are asked to explain one of their fieldwork data collection methods, they should say what the method was and why they used that method for their investigation.
- Ensure that candidates have a clear understanding of sampling strategies. The specification outlines the three strategies that candidates should understand: random, systematic and stratified. Candidates should understand why they have used a specific sampling strategies and what the associated advantages and limitations are of each strategy.
- Provide candidates with opportunities to practise unfamiliar fieldwork questions by using specimen and previous summer exams so that they become familiar with the different stages of the fieldwork enquiry process.

Grade boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:

<https://qualifications.pearson.com/en/support/support-topics/results-certification/grade-boundaries.html>

